

ATTACHMENT 1

Exceptional Event Analysis of PM₁₀ Federal Exceedance On July 16, 2006, in South Coast Air Quality Management District

Background

In a letter dated December 15, 2006, the South Coast Air Quality Management District (District) requested that the federal PM₁₀ exceedances that occurred at two Coachella Valley monitoring stations – Indio and Palm Springs - be identified as caused by an exceptional event due to wildfire smoke and natural windblown dust (Attachment A). Our evaluation of this event is based upon the following information developed by the District and Air Resources Board (ARB) staff.

- Attachment A – District request for exceptional event analysis
- Attachment B – Final Report: Analysis of Natural Events Contributing to High PM₁₀ Concentrations in the Coachella Valley on July 16, 2006

Analysis

As noted in Attachment A and further detailed in Attachment B, the Indio and Palm Springs monitoring sites located in the Coachella Valley in the Salton Sea Air Basin experienced a one day violation of the PM₁₀ 24-hour National Ambient Air Quality Standard (NAAQS) on July 16, 2006.

The 24-hour PM₁₀ concentrations at the Indio and Palm Springs monitoring sites on July 16, 2006 were 313 $\mu\text{g}/\text{m}^3$ and 226 $\mu\text{g}/\text{m}^3$ respectively. Typical 24-hour PM₁₀ concentrations during the month of July at these sites range from 40 to 100 $\mu\text{g}/\text{m}^3$ at Indio and 20 to 50 $\mu\text{g}/\text{m}^3$ at Palm Springs.

A description of the severe thunderstorm activity in southwestern Arizona and southeastern California is presented in detail. The Millard Complex and Sawtooth Complex wildfires and the subsequent thunderstorms in the area are also presented and a District analysis of the effect of these events is detailed in Attachment B.

Conclusion

ARB Staff has reviewed the data and analysis submitted by the District, as well as conducted its own analysis. The Air Resources Board concurs with the District assessment that a combination of thunderstorm- and wind-blown dust, as well as smoke and ash from the Millard and Sawtooth Complex fires, contributed to the federal PM₁₀ exceedances at Indio and Palm Springs on July 16, 2006.